

WHAT IS CLAIMED IS:

- Sub 42 (2) 42 50 4*
1. An apparatus for treating cells of an eye in a patient, comprising:
an energy emitting device, adapted to emit energy to heat said cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs in said cells, to kill said cells or impede multiplication of said cells; and
a material delivery device adapted to deliver a fluid including indocyanine green to said cells, said fluid being adapted to alter a physical characteristic of said cells.
- Sub 53*
2. A system as claimed in claim 1, wherein:
an amount of said indocyanine green in said fluid is between about 0.4 mg/kg to about 1.4 mg/kg of the patient's body weight.
3. A system as claimed in claim 1, wherein:
said energy emitting device includes a laser diode.
4. A system as claimed in claim 1, wherein:
said material delivery device delivers said fluid intravenously.
- Sub 53*
5. A system as claimed in claim 1, wherein:
said energy emitting device includes a laser diode, which is adapted to emit said energy to activate said indocyanine ^{green} portion of said fluid.
- Sub 53*
6. A system as claimed in claim 1, wherein:
said energy emitting device comprises a fluid container which is adapted to receive and contain said fluid therein.
7. A system as claimed in claim 6, wherein:

a concentration of said indocyanine green is between about 1 micron and 200 micrograms per milliliter of said fluid.

8. A system as claimed in claim 6, wherein:
said fluid container is adapted to expand when receiving said fluid therein.

9. A system as claimed in claim 6, wherein:
said fluid container comprises a permeable membrane, which is adapted to release at least some of said fluid contained in said fluid container.

10. A system as claimed in claim 6, wherein:
said fluid container comprises a wall having at least one opening therein, which is adapted to release therethrough at least some of said fluid contained in said fluid container.

11. A system as claimed in claim 1, wherein:
said energy emitting device and said material delivery device are configured as a unitary device, which is adapted to emit said energy to heat said cells and to deliver said fluid to said cells.

12. A system as claimed in claim 11, wherein:
said unitary device comprises a fluid container, adapted to receive and contain a fluid therein which emits said energy as thermal energy; and
said fluid container is further adapted to release therefrom at least some of said fluid, to enable said material to contact said cells.

13. A system as claimed in claim 1, further comprises

a light emitting device, adapted to emit light energy which activates said indocyanine green in contact with said cells to cause said activated indocyanine green to kill or impede multiplication of said cells.

14. A method for treating choroidal cells in of an eye of a patient, comprising the steps of:

positioning an energy emitting device at a position in relation to said choroidal cells; and

causing said energy emitting device to emit said energy to heat said choroidal cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs in said choroidal cells, to kill said choroidal cells or impede multiplication of said choroidal cells.

15. A method as claimed in claim 14, further comprising the step of:

introducing a fluid to the choroidal cells of the eye, said fluid including indocyanine green; and

activating, with said energy emitting device, said indocyanine green that is in contact with said choroidal cells to cause said indocyanine green to kill or impede multiplication of said choroidal cells.

16. A method as claimed in claim 15, wherein:

a concentration of indocyanine green is between about 0.4 mg/kg to about 15 mg/kg of the patient's body weight.

17. A method as claimed in claim 15, wherein:

said activating step includes activating said indocyanine green with light emitted by a laser diode.

18. A method as claimed in claim 15, wherein

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18. A method as claimed in claim 14, wherein:
said introducing step includes introducing said fluid intravenously.
19. A method as claimed in claim 14, wherein:
said positioning step includes positioning a laser diode device at a position in relation to said choroidal cells.
20. A method for treating cells of an eye, comprising the steps of:
positioning an energy emitting device having a container containing a fluid including indocyanine green, at a position in relation to said cells; and
causing said energy emitting device to emit energy which activates the indocyanine green and heats said cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs in said cells, to kill said cells or impede multiplication of said cells.
21. A method as claimed in claim 20, wherein:
said container is expandable; and
said positioning step includes positioning said fluid in said container at a pressure sufficient to expand said container.
22. A method as claimed in claim 20, wherein:
said container comprises a permeable membrane; and
said positioning step includes positioning said fluid in said container such that at least some of said fluid contained in said container exits said container through said permeable membrane.
23. A method as claimed in claim 20, wherein:
said container comprises a wall having at least one opening therein; and

~~said positioning step includes positioning said fluid in said container such that at least some of said fluid contained in said container exits said container through said at least one opening.~~

24. A method as claimed in claim 20, wherein
the causing step includes causing a light emitting device, adapted to emit said energy as light energy which activates said indocyanine green in contact with said cells to cause said activated indocyanine green to kill or impede multiplication of said cells.

25. A method as claimed in claim 20, wherein
said positioning step includes positioning said energy emitting device in relation to choroidal cells of the eye.